

Attorney Docket No.: BDA-0038
Inventors: Roger S. Cubicciotti
Serial No.: 09/171,885
Filing Date: October 28, 1998
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In claim 8, please delete "7" and ~~insert~~ --12--.

Please cancel claims ~~1, 3, 5, and 7.~~

Please add the following new claims

-- 9. A prodrug complex comprising:

(a) a selected synthetic receptor; and

(b) a selected drug that binds to the synthetic receptor with lower affinity than to the drug's pathophysiologic receptor so that the selected drug preferentially binds to the pathophysiologic receptor with no loss of efficacy of the selected drug, with the proviso that the synthetic receptor is not a polypeptide derived from a naturally occurring protein to which the drug binds.

10. A multi-prodrug complex comprising:

(a) at least two selected synthetic receptors; and

(b) at least two selected drugs that bind to the synthetic receptors with lower affinity than to the drugs' pathophysiologic receptors so that the selected drugs preferentially bind to their pathophysiologic receptors with no loss of efficacy of the selected drugs,

New
Matter?

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with the proviso that at least one of the selected synthetic receptors is not a polypeptide derived from a naturally occurring protein to which the drug binds.

11. A method of enhancing delivery of a selected drug to a pathophysiologic receptor for said selected drug comprising:

a/ (a) selecting a drug to be delivered as a prodrug complex and a synthetic receptor that is not a polypeptide derived from a naturally occurring protein to which the drug binds, wherein said selected drug binds to the selected synthetic receptor with lower affinity than to the drug's pathophysiologic receptor so that the selected drug preferentially binds to the drug's pathophysiologic receptor with no loss of efficacy of the selected drug;

(b) binding the selected drug to the selected synthetic receptor to produce a prodrug complex; and

(c) delivering the prodrug complex to the drug's pathophysiologic receptor so that the selected drug dissociates from the selected synthetic receptor and binds to the drug's pathophysiologic receptor.

12. A method of enhancing delivery of selected drugs to pathophysiologic receptors for said selected drugs comprising:

(a) selecting at least two drugs to be delivered as a prodrug complex and at least two synthetic receptors, at least one of which

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is not a polypeptide derived from a naturally occurring protein to which the drug binds, wherein said selected drugs bind to the selected synthetic receptors with lower affinity than to the drugs' pathophysiologic receptors so that the selected drugs preferentially bind to the drugs' pathophysiologic receptors with no loss of efficacy of the selected drugs;

(b) binding the selected drugs to the selected synthetic receptors to produce a multi-prodrug complex; and

(c) delivering the multi-prodrug complex to the drugs' pathophysiologic receptors so that the selected drugs dissociate from the selected synthetic receptors and bind to the drugs' pathophysiologic receptors.

13. An immobilized prodrug complex comprising:

(a) a selected synthetic receptor;

(b) a selected drug that binds to the synthetic receptor with lower affinity than to the drug's pathophysiologic receptor so that the selected drug preferentially binds to the pathophysiologic receptor with no loss of efficacy of the selected drug; and

(c) a biologic or biocompatible structure attached to the selected synthetic receptor or selected drug. --